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SEQUENCE LISTING

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<120> Method For Cloning And Producing The MseI Restriction Endonuclease

<130> NEB-181

<140> US 09/689,343
<141> 2000-10-12

E7
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<170> PatentIn version 3.1

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gag gcg gac aac ctc gat ttc att caa acg ctc ccc gac gcg agc ttc	96
Glu Ala Asp Asn Leu Asp Phe Ile Gln Thr Leu Pro Asp Ala Ser Phe	
20 25 30	

cga atg atc tac atc gat ccg ccg ttc aac aca ggg cga acg cag cgg	144
Arg Met Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Arg Thr Gln Arg	
35 40 45	

ctt cag tcg ctc aag acg acc cgc tcg gtc aca ggg tcg cga gtc ggc	192
Leu Gln Ser Leu Lys Thr Thr Arg Ser Val Thr Gly Ser Arg Val Gly	
50 55 60	

ttc aaa ggc cag acg tac gac acg gtc aag agc act ctg cac tcg tat	240
Phe Lys Gly Gln Thr Tyr Asp Thr Val Lys Ser Thr Leu His Ser Tyr	
65 70 75 80	

gac gac gct ttc acc gac tat tgg tcg ttc ctc gaa ccg cgt ctc ctg	288
Asp Asp Ala Phe Thr Asp Tyr Trp Ser Phe Leu Glu Pro Arg Leu Leu	
85 90 95	

gag gct tgg cgg ttg ctc acc cct gac ggc gcg ctc tat ctt cat ctg 336
 Glu Ala Trp Arg Leu Leu Thr Pro Asp Gly Ala Leu Tyr Leu His Leu
 100 105 110
 gat tac cgc gag gtt cac tac gcc aag gtc gtc ctc gac gcg atg ttc 384
 Asp Tyr Arg Glu Val His Tyr Ala Lys Val Val Leu Asp Ala Met Phe
 115 120 125

 gga cgc gaa agc ttc ctg aac gag ctg atc tgg gcg tac gac tac ggc 432
 Gly Arg Glu Ser Phe Leu Asn Glu Leu Ile Trp Ala Tyr Asp Tyr Gly
 130 135 140

 gcg cgc tcg aag agc aag tgg ccc acc aag cac gac aac atc ctc gtg 480
 Ala Arg Ser Lys Ser Lys Trp Pro Thr Lys His Asp Asn Ile Leu Val
 145 150 155 160

 tat gtg aag gac ccg aac aac tac gtc tgg aac ggt cag gat gta gat 528
 Tyr Val Lys Asp Pro Asn Asn Tyr Val Trp Asn Gly Gln Asp Val Asp
 165 170 175

E1
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 Arg Glu Pro Tyr Met Ala Pro Gly Leu Val Thr Pro Glu Lys Val Ala
 180 185 190

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 Leu Gly Lys Leu Pro Thr Asp Val Trp Trp His Thr Ile Val Pro Pro
 195 200 205

 gcg agc aaa gag cgc acc ggg tac gcg aca cag aag ccg gtc ggc atc 672
 Ala Ser Lys Glu Arg Thr Gly Tyr Ala Thr Gln Lys Pro Val Gly Ile
 210 215 220

 atc cgt cgc atg att cag gcg agc agc aat gaa ggc gac tgg gtt ctg 720
 Ile Arg Arg Met Ile Gln Ala Ser Ser Asn Glu Gly Asp Trp Val Leu
 225 230 235 240

 gat ttc ttc gct ggt agt ggg acg acc ggc gcc gcg cgc cag ctc 768
 Asp Phe Phe Ala Gly Ser Gly Thr Thr Gly Ala Ala Arg Gln Leu
 245 250 255

 gga cgc cgt ttt gtg ctc gta gac gtc aac cca gaa gca atc gcg gta 816
 Gly Arg Arg Phe Val Leu Val Asp Val Asn Pro Glu Ala Ile Ala Val
 260 265 270

 atg gca aaa cgg ttg gat gac ggg gca ttg gac acc agc gtg acg atc 864
 Met Ala Lys Arg Leu Asp Asp Gly Ala Leu Asp Thr Ser Val Thr Ile
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 <213> Micrococcus sp.

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Arg Met Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Arg Thr Gln Arg
35 40 45

Leu Gln Ser Leu Lys Thr Thr Arg Ser Val Thr Gly Ser Arg Val Gly
50 55 60

Phe Lys Gly Gln Thr Tyr Asp Thr Val Lys Ser Thr Leu His Ser Tyr
65 70 75 80

Asp Asp Ala Phe Thr Asp Tyr Trp Ser Phe Leu Glu Pro Arg Leu Leu
85 90 95

Glu Ala Trp Arg Leu Leu Thr Pro Asp Gly Ala Leu Tyr Leu His Leu
100 105 110

Asp Tyr Arg Glu Val His Tyr Ala Lys Val Val Leu Asp Ala Met Phe
115 120 125

Gly Arg Glu Ser Phe Leu Asn Glu Leu Ile Trp Ala Tyr Asp Tyr Gly
130 135 140

Ala Arg Ser Lys Ser Lys Trp Pro Thr Lys His Asp Asn Ile Leu Val
145 150 155 160

Tyr Val Lys Asp Pro Asn Asn Tyr Val Trp Asn Gly Gln Asp Val Asp
165 170 175

Arg Glu Pro Tyr Met Ala Pro Gly Leu Val Thr Pro Glu Lys Val Ala
180 185 190

Leu Gly Lys Leu Pro Thr Asp Val Trp Trp His Thr Ile Val Pro Pro
195 200 205

Ala Ser Lys Glu Arg Thr Gly Tyr Ala Thr Gln Lys Pro Val Gly Ile
210 215 220

Ile Arg Arg Met Ile Gln Ala Ser Ser Asn Glu Gly Asp Trp Val Leu
225 230 235 240

Asp Phe Phe Ala Gly Ser Gly Thr Thr Gly Ala Ala Ala Arg Gln Leu
245 250 255

Gly Arg Arg Phe Val Leu Val Asp Val Asn Pro Glu Ala Ile Ala Val
260 265 270

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Val Gln Thr Pro Gln Ser Asp Pro Arg Thr Asp Gly

290

295

300

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acc tcc ttg cat ctg gag agt gtg gtc act gag gga gcg gag tca ccg 96
 Thr Ser Leu His Leu Glu Ser Val Val Thr Glu Gly Ala Glu Ser Pro
 20 25 30

cct aat cgt ctg att tgg gcg gac aac ctg ccg cta atg gta gat ttg 144
 Pro Asn Arg Leu Ile Trp Ala Asp Asn Leu Pro Leu Met Val Asp Leu
 35 40 45

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ttg gcc gaa tat gaa ggg aaa atc gat ctg atc tac gcc gat ccc cct      192
Leu Ala Glu Tyr Glu Gly Lys Ile Asp Leu Ile Tyr Ala Asp Pro Pro
      50           55           60

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ttt ttt acg gat cgt act tat gcg gcg cga att ggt cat ggg gag gat 240
Phe Phe Thr Asp Arg Thr Tyr Ala Ala Arg Ile Gly His Gly Glu Asp
65 70 75 80

tcg cgt cgt cca caa acc tgg cag ctt gca gaa gga tat acg gac gag 288
 Ser Arg Arg Pro Gln Thr Trp Gln Leu Ala Glu Gly Tyr Thr Asp Glu
 85 90 95

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tgg aag gat tta gat gaa tac ctg gac ttc ctt tat cca cgc ctg gta      336
Trp Lys Asp Leu Asp Glu Tyr Leu Asp Phe Leu Tyr Pro Arg Leu Val
          100           105           110

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ctg atg tat cga ctg ctg gca cca cac gga acg ctc tac ttg cac ctg 384

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115							120						125		
gac tgg cac gcc aat gcc tac gta cgt gta ctg ctt gat gag atc ttc															432
Asp	Trp	His	Ala	Asn	Ala	Tyr	Val	Arg	Val	Leu	Leu	Asp	Glu	Ile	Phe
130							135						140		
ggg cga cag cgg ttt ctc aac gag atc gtc tgg atc tat cac ggc ccc															480
Gly	Arg	Gln	Arg	Phe	Leu	Asn	Glu	Ile	Val	Trp	Ile	Tyr	His	Gly	Pro
145							150						155		160
tca gcc atc cga cgc gcc ttc aag cgc aaa cat gat acc atc ttg gtt															528
Ser	Ala	Ile	Arg	Arg	Ala	Phe	Lys	Arg	Lys	His	Asp	Thr	Ile	Leu	Val
							165						170		175
tat gtg aaa ggt gaa aac tat aca ttc aat gcg gat gcg gtt cgt caa															576
Tyr	Val	Lys	Gly	Glu	Asn	Tyr	Thr	Phe	Asn	Ala	Asp	Ala	Val	Arg	Gln
							180						185		190
cct tac cat ccg agc acn cat aag acc ttc gct tcc tcc ccg aag gcc															624
Pro	Tyr	His	Pro	Ser	Xaa	His	Lys	Thr	Phe	Ala	Ser	Ser	Pro	Lys	Ala
							195						200		205
ggc ttt ggt aag gtg ccg gat ctg cag cgc ggc aaa gtg ccc gaa gac															672
Gly	Phe	Gly	Lys	Val	Pro	Asp	Leu	Gln	Arg	Gly	Lys	Val	Pro	Glu	Asp
							210						215		220
tgg tgg tat ttt ccg gtc gtg gcc cgt cta cac cga gaa cgg agc ggc															720
Trp	Trp	Tyr	Phe	Pro	Val	Val	Ala	Arg	Leu	His	Arg	Glu	Arg	Ser	Gly
							225						230		235
tat ccg actcaa aag cctcaa gcc ttg ctg gag cgg atc ctg ctg gcc															768
Tyr	Pro	Thr	Gln	Lys	Pro	Gln	Ala	Leu	Leu	Glu	Arg	Ile	Leu	Leu	Ala
							245						250		255
tcc tcg aac gca ggc gat ctg gtg gca gac ttc ttc tgc ggc tca ggg															816
Ser	Ser	Asn	Ala	Gly	Asp	Leu	Val	Ala	Asp	Phe	Phe	Cys	Gly	Ser	Gly
							260						265		270
aca acc gct gtg gtg gca gcc cgt ctg gga cgg cgc ttc ctg gtc aac															864
Thr	Thr	Ala	Val	Val	Ala	Ala	Arg	Leu	Gly	Arg	Arg	Phe	Leu	Val	Asn
							275						280		285
gat gca agc tgg cgc gcc gtt cat gtg aca cgc aca cgc ttg cta cgc															912
Asp	Ala	Ser	Trp	Arg	Ala	Val	His	Val	Thr	Arg	Thr	Arg	Leu	Leu	Arg
							290						295		300
gag gga gta agt ttc act ttt gaa cgc cag gaa act ttt act cta cct															960
Glu	Gly	Val	Ser	Phe	Thr	Phe	Glu	Arg	Gln	Glu	Thr	Phe	Thr	Leu	Pro
							305						310		315
atc cag cca ctt cca cca gat tgg ttg atc atc gcc gag gag cag att															1008
Ile	Gln	Pro	Leu	Pro	Pro	Asp	Trp	Leu	Ile	Ile	Ala	Glu	Gln	Ile	
							325						330		335
cgc ctc caa gca ccc ttt ctc gta gat ttt tgg gaa gtg gac gat caa															1056

Arg Leu Gln Ala Pro Phe Leu Val Asp Phe Trp Glu Val Asp Asp Gln
 340 345 350
 tgg gat ggc aaa atc ttc cgc agc cgt cat caa ggc tta cgc tcc cgc 1104
 Trp Asp Gly Lys Ile Phe Arg Ser Arg His Gln Gly Leu Arg Ser Arg
 355 360 365
 ctt cag gag cag gcg ccg ctc tct cta cca ttg acc ggg aat gga ctg 1152
 Leu Gln Glu Gln Ala Pro Leu Ser Leu Pro Leu Thr Gly Asn Gly Leu
 370 375 380
 ttg tgt gta cgg gta gtg agc cgt gaa ggg gaa tac tat gag ttc aca 1200
 Leu Cys Val Arg Val Val Ser Arg Glu Gly Glu Tyr Tyr Glu Phe Thr
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 35 40 45
 Leu Ala Glu Tyr Glu Gly Lys Ile Asp Leu Ile Tyr Ala Asp Pro Pro
 50 55 60
 Phe Phe Thr Asp Arg Thr Tyr Ala Ala Arg Ile Gly His Gly Glu Asp
 65 70 75 80
 Ser Arg Arg Pro Gln Thr Trp Gln Leu Ala Glu Gly Tyr Thr Asp Glu
 85 90 95
 Trp Lys Asp Leu Asp Glu Tyr Leu Asp Phe Leu Tyr Pro Arg Leu Val
 100 105 110
 Leu Met Tyr Arg Leu Leu Ala Pro His Glv Thr Leu Tvr Leu His Leu

	115	120	125
Asp Trp His Ala Asn Ala Tyr Val Arg Val Leu Leu Asp Glu Ile Phe			
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Gly Arg Gln Arg Phe Leu Asn Glu Ile Val Trp Ile Tyr His Gly Pro			
145	150	155	160
Ser Ala Ile Arg Arg Ala Phe Lys Arg Lys His Asp Thr Ile Leu Val			
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Tyr Val Lys Gly Glu Asn Tyr Thr Phe Asn Ala Asp Ala Val Arg Gln			
180	185	190	
Pro Tyr His Pro Ser Xaa His Lys Thr Phe Ala Ser Ser Pro Lys Ala			
195	200	205	
Gly Phe Gly Lys Val Pro Asp Leu Gln Arg Gly Lys Val Pro Glu Asp			
210	215	220	
Trp Trp Tyr Phe Pro Val Val Ala Arg Leu His Arg Glu Arg Ser Gly			
225	230	235	240
Tyr Pro Thr Gln Lys Pro Gln Ala Leu Leu Glu Arg Ile Leu Leu Ala			
245	250	255	
Ser Ser Asn Ala Gly Asp Leu Val Ala Asp Phe Phe Cys Gly Ser Gly			
260	265	270	
Thr Thr Ala Val Val Ala Ala Arg Leu Gly Arg Arg Phe Leu Val Asn			
275	280	285	
Asp Ala Ser Trp Arg Ala Val His Val Thr Arg Thr Arg Leu Leu Arg			
290	295	300	
Glu Gly Val Ser Phe Thr Phe Glu Arg Gln Glu Thr Phe Thr Leu Pro			
305	310	315	320
Ile Gln Pro Leu Pro Pro Asp Trp Leu Ile Ile Ala Glu Glu Gln Ile			
325	330	335	
Arg Leu Gln Ala Pro Phe Leu Val Asp Phe Trp Glu Val Asp Asp Gln			
340	345	350	
Trp Asp Gly Lys Ile Phe Arg Ser Arg His Gln Gly Leu Arg Ser Arg			
355	360	365	
Leu Gln Glu Gln Ala Pro Leu Ser Leu Pro Leu Thr Gly Asn Gly Leu			
370	375	380	
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gcc gac aac atg gaa gtc ctg cga ggg ctt ccg gcg gcg tcc gtg gac	96
Ala Asp Asn Met Glu Val Leu Arg Gly Leu Pro Ala Ala Ser Val Asp	
20 25 30	
ctg atc tac atc gat cct ccg ttc aac acc gga aag gtt cag gag cgc	144
Leu Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Lys Val Gln Glu Arg	
35 40 45	
act cag ctc aaa acg gtg cgc tcc gag tgg ggc gat cgc gtc gga ttc	192
Thr Gln Leu Lys Thr Val Arg Ser Glu Trp Gly Asp Arg Val Gly Phe	
50 55 60	
cag ggc cgt cgc tac gaa agc atc gtc gtg ggt aag aag cgc ttt acc	240
Gln Gly Arg Arg Tyr Glu Ser Ile Val Val Gly Lys Lys Arg Phe Thr	
65 70 75 80	
gac ttc ttc gac gac tat ctg gct ttc ctg gaa ccg cgc ctg gtc gaa	288
Asp Phe Phe Asp Asp Tyr Leu Ala Phe Leu Glu Pro Arg Leu Val Glu	
85 90 95	
gcc cat cgt gtt ctg gcg ccg cac ggg tgc ctc tac ttt cac gtc gac	336
Ala His Arg Val Leu Ala Pro His Gly Cys Leu Tyr Phe His Val Asp	
100 105 110	
tac cgc gag gtg cac tac tgt aag gtc ctt ctt gac ggc atc ttc ggt	384
Tyr Arg Glu Val His Tyr Cys Lys Val Leu Leu Asp Gly Ile Phe Gly	
115 120 125	
cgc gag gcc ttt ctc aac gag atc atc tgg gcc tac gat tac ggc ggg	432
Arg Glu Ala Phe Leu Asn Glu Ile Ile Trp Ala Tyr Asp Tyr Gly Gly	
130 135 140	
cgt ccg aag gac agg tgg cct cct aag cac gac aac atc ctg ctc tac	480
Arg Pro Lys Asp Arg Trp Pro Pro Lys His Asp Asn Ile Leu Leu Tyr	
145 150 155 160	
gcc aag act ccc ggt cgc cac gtg ttc aat gcg gac gaa atc gag cgc	528
Ala Lys Thr Pro Gly Arg His Val Phe Asn Ala Asp Glu Ile Glu Arg	
165 170 175	

att ccc tac atg gct ccg ggc ctg gtt ggc ccc gaa aag gca gcc cgt 576
 Ile Pro Tyr Met Ala Pro Gly Leu Val Gly Pro Glu Lys Ala Ala Arg
 180 185 190

gga aaa ctg cca acc gac acg tgg tgg cat acg atc gtt ccg acc agc 624
 Gly Lys Leu Pro Thr Asp Thr Trp Trp His Thr Ile Val Pro Thr Ser
 195 200 205

ggc tcc gag aag acc ggg tat cca acc cag aaa cct tta ggg att ctc 672
 Gly Ser Glu Lys Thr Gly Tyr Pro Thr Gln Lys Pro Leu Gly Ile Leu
 210 215 220

cgc cgt att gtg cag gca tcg tct cat ccg ggg gca gtc gtg ctc gac 720
 Arg Arg Ile Val Gln Ala Ser Ser His Pro Gly Ala Val Val Leu Asp
 225 230 235 240

ttc ttc gcc ggc agt ggg aca aca ggg gta gcg gct ttt gag ttg ggc 768
 Phe Phe Ala Gly Ser Gly Thr Thr Gly Val Ala Ala Phe Glu Leu Gly
 245 250 255

cgg cgt ttc att ctg gtc gat aac cat ccg gag gcc ctc cag gtg atg 816
 Arg Arg Phe Ile Leu Val Asp Asn His Pro Glu Ala Leu Gln Val Met
 260 265 270

E? gcc agg cgc ttc gac ggc atc gag ggg atc gaa tgg gtg ggc ttc gat 864
 Ala Arg Arg Phe Asp Gly Ile Glu Gly Ile Glu Trp Val Gly Phe Asp
 275 280 285

ccg aca ccg tac cag aag ggc gca aag cag cgc cgc tcc tgc ccg gcg 912
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 Pro Thr Gly
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 <213> Unknown

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Leu Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Lys Val Gln Glu Arg
 35 40 45

Thr Gln Leu Lys Thr Val Arg Ser Glu Trp Gly Asp Arg Val Gly Phe
 50 55 60

Gln Gly Arg Arg Tyr Glu Ser Ile Val Val Gly Lys Lys Arg Phe Thr
 65 70 75 80

Asp Phe Phe Asp Asp Tyr Leu Ala Phe Leu Glu Pro Arg Leu Val Glu
 85 90 95

Ala His Arg Val Leu Ala Pro His Gly Cys Leu Tyr Phe His Val Asp
 100 105 110

Tyr Arg Glu Val His Tyr Cys Lys Val Leu Leu Asp Gly Ile Phe Gly
 115 120 125

Arg Glu Ala Phe Leu Asn Glu Ile Ile Trp Ala Tyr Asp Tyr Gly Gly
 130 135 140

Arg Pro Lys Asp Arg Trp Pro Pro Lys His Asp Asn Ile Leu Leu Tyr
 145 150 155 160

Ala Lys Thr Pro Gly Arg His Val Phe Asn Ala Asp Glu Ile Glu Arg
 165 170 175

Ile Pro Tyr Met Ala Pro Gly Leu Val Gly Pro Glu Lys Ala Ala Arg
 180 185 190

Gly Lys Leu Pro Thr Asp Thr Trp Trp His Thr Ile Val Pro Thr Ser
 195 200 205

Gly Ser Glu Lys Thr Gly Tyr Pro Thr Gln Lys Pro Leu Gly Ile Leu
 210 215 220

Arg Arg Ile Val Gln Ala Ser Ser His Pro Gly Ala Val Val Leu Asp
 225 230 235 240

Phe Phe Ala Gly Ser Gly Thr Thr Gly Val Ala Ala Phe Glu Leu Gly
 245 250 255

Arg Arg Phe Ile Leu Val Asp Asn His Pro Glu Ala Leu Gln Val Met
 260 265 270

Ala Arg Arg Phe Asp Gly Ile Glu Gly Ile Glu Trp Val Gly Phe Asp
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Pro Thr Pro Tyr Gln Lys Gly Ala Lys Gln Arg Arg Ser Cys Pro Ala
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Pro Thr Gly
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Ser Ala Ala Asn Leu Ala Asp Arg Tyr Val Ala Ser Glu Asp Asp Pro	
20 25 30	
tgg gtc ggc agc ccg ttc gag tgg atc ctt cgc gtt cca tcc aga acg	144
Trp Val Gly Ser Pro Phe Glu Trp Ile Leu Arg Val Pro Ser Arg Thr	
35 40 45	
aag ggc gcg gtc ggt gag ctg ctc gtg agc gaa tgg gct aat gcc aaa	192
Lys Gly Ala Val Gly Glu Leu Leu Val Ser Glu Trp Ala Asn Ala Lys	
50 55 60	
ggc ctc cgt gtg aag agg tcg ggg tcc agc gat gc ^g gac cgc gtg atc	240
Gly Leu Arg Val Lys Arg Ser Gly Ser Asp Ala Asp Arg Val Ile	
65 70 75 80	
aac ggg cat cgc atc gag atc aag atg tcg act ttg tgg aag tcc ggc	288
Asn Gly His Arg Ile Glu Ile Lys Met Ser Thr Leu Trp Lys Ser Gly	
85 90 95	
ggc ttc aag ttt cag cag atc cgg gat cag gag tac gac ttt tgc ctc	336
Gly Phe Lys Phe Gln Gln Ile Arg Asp Gln Glu Tyr Asp Phe Cys Leu	
100 105 110	
tgc ctt ggg atc agc ccg ttc gaa gtg cac gc ^g tgg ctg ctg ccc aaa	384
Cys Leu Gly Ile Ser Pro Phe Glu Val His Ala Trp Leu Leu Pro Lys	
115 120 125	
gac cta ttg ctt gag tac gtg att ggt cac atg ggt cag cac acc ggc	432
Asp Leu Leu Glu Tyr Val Ile Gly His Met Gly Gln His Thr Gly	
130 135 140	
g ^c g ^c g ^g a ^g c ^g a ^c g ^c a ^t g ^c t ^g g ^g t ^c c ^g g ^c g ^a g ^c g ^g	480
Ala Ser Gly Ser Asp Thr Ala Trp Leu Gly Phe Pro Ala Asp Glu Pro	
145 150 155 160	
tat gac tgg atg cgc cct ttc gga ggt cgc tta ggt cac gtc gaa gat	528
Tyr Asp Trp Met Arg Pro Phe Gly Gly Arg Leu Gly His Val Glu Asp	
165 170 175	
ctc ctc ctc g ^c g ^g c ^g c ^c g ^g t ^c t ^a t ^g a	561
Leu Leu Leu Ala Ala Gly Pro Gly Pro Tyr	
180 185	

<210> 8
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<400> 8

Val Thr His Glu Pro Thr Asp Asp Pro Asp Phe Ile Val Met Ala Ala
1 5 10 15

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20 25 30

Trp Val Gly Ser Pro Phe Glu Trp Ile Leu Arg Val Pro Ser Arg Thr
35 40 45

Lys Gly Ala Val Gly Glu Leu Leu Val Ser Glu Trp Ala Asn Ala Lys
50 55 60

Gly Leu Arg Val Lys Arg Ser Gly Ser Ser Asp Ala Asp Arg Val Ile
65 70 75 80

Asn Gly His Arg Ile Glu Ile Lys Met Ser Thr Leu Trp Lys Ser Gly
85 90 95

Gly Phe Lys Phe Gln Gln Ile Arg Asp Gln Glu Tyr Asp Phe Cys Leu
100 105 110

Cys Leu Gly Ile Ser Pro Phe Glu Val His Ala Trp Leu Leu Pro Lys
115 120 125

Asp Leu Leu Leu Glu Tyr Val Ile Gly His Met Gly Gln His Thr Gly
130 135 140

Ala Ser Gly Ser Asp Thr Ala Trp Leu Gly Phe Pro Ala Asp Glu Pro
145 150 155 160

Tyr Asp Trp Met Arg Pro Phe Gly Gly Arg Leu Gly His Val Glu Asp
165 170 175

Leu Leu Leu Ala Ala Gly Pro Gly Pro Tyr
180 185

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ccggttttt ttgcgttgaa tttgtcattt tgtgccgtgg tgtttaaacc gcacagaata 180

aattgtcgat atttcacctt taaaataaaa taaaaagaga aaaaaattct ctgtggaagg 240

gctatgttag ataaaattga ccgtaagctg ctggccttac tgcagcagga ttgcaccctc 300
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EN
core